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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,663	05/23/2001	Peter J. Brittenham	RSW920010097US1	3824

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EXAMINER

PHILLIPS, HASSAN A

ART UNIT	PAPER NUMBER
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2151

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/864,663

Applicant(s)

BRITTENHAM ET AL.

Examiner

Hassan Phillips

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/2/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to amendments filed and received on December 2, 2004.

Information Disclosure Statement

2. The information disclosure statement filed on December 2, 2004, has been received and considered by the Examiner.

Specification

3. The Examiner appreciates the Applicant checking the Specification for minor errors, and amending the Specification to update the Related Inventions section on page 1. The Applicant is further reminded to continuously update the Related Inventions section with the current status of the cited applications.

Response to Arguments

4. Applicant's arguments, with respect to claims 2-25 (i.e. Claim 17), filed December 2, 2004, have been fully considered but they are not persuasive. In response to applicant's argument that there is no suggestion to combine the selected components, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention

where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, knowledge generally available to one of ordinary skill in the art would have made it obvious to modify the teachings of Rabinovich to implement the steps claimed in the Applicants invention at the present time of the Applicants invention.

5. Applicant's arguments with respect to claims 1-27, have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-17, 20-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabinovich, U.S. patent 6,256,675 (supplied by applicant), in view of Sim et al. (hereinafter Sim), U.S. Patent 6,857,012.

8. In considering claims 1, 26, and 27, Rabinovich discloses a method, system, and computer program product for dynamically deploying services in a computing network, comprising: receiving client requests for a selected service, (col. 4, lines 41-43); serving the received requests from a first server when the selected service has not yet been dynamically deployed, (col. 4, lines 56-61); effecting a dynamic deployment by programmatically moving the selected service from the first server to one or more other servers when the dynamic deployment is triggered, (col. 5, lines 8-11); and serving the received requests from the one or more other servers after the effecting step causes the selected service to be dynamically deployed, (col. 4, lines 56-61).

Although the teachings of Rabinovich disclose substantial features of the claimed invention, they fail to explicitly disclose: receiving a request for a service outside a local network that communicatively connects an origin server and an edge server.

Nevertheless, receiving requests outside of local networks that communicatively connect origin servers and edge servers was well known in the art at the time of the present invention. Sim teaches this in a discussion of the prior art. More specifically Sim teaches: a well-known scheme for communicatively connecting origin servers to edge servers, where the edge servers are closer to an edge of a local network than the origin servers, and the edge servers are used to provide services to requesting users, (col. 4, lines 54-65).

Thus, given the teachings of Sim, it would have been obvious to one of ordinary skill in the art to modify the teachings of Rabinovich to show receiving the requests outside a local network, which communicatively connects an origin server and an edge

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server, and where the edge server is closer to an edge of the local network than the origin server, and dynamically deploying the selected service from the origin server to the edge server. This would have provided an effective and efficient means for minimizing the distance between the requested content and where it is served, and would have also saved network bandwidth, Sim, col. 4, lines 54-65.

9. In considering claim 2, Rabinovich further teaches: monitoring the number of the received client requests for the selected service, (col. 4, lines 45-50); and triggering the dynamic deployment when the number exceeds a predetermined threshold, (col. 5, lines 8-11).

10. In considering claim 3, it is implicit in the teachings of Rabinovich that the predetermined threshold applies to a plurality of dynamically deployable services. See col. 5, lines 2-6.

11. In considering claim 4, Rabinovich teaches the predetermined threshold being applied to a selected service. See col. 5, lines 2-6.

12. In considering claim 5, the teachings of Rabinovich provide a means for a value of the predetermined threshold to be applied to all of the one or more edge servers. See col. 5, lines 2-6.

13. In considering claim 6, the teachings of Rabinovich provide a means for the predetermined threshold being applied to individual ones of the one or more edge servers. See col. 5, lines 2-6.

14. In considering claim 7, it is implicit in the teachings of Rabinovich that a systems administrator specifies a value of the predetermined threshold. See col. 5, lines 2-6.

15. In considering claim 8, it is implicit in the teachings of Rabinovich that a value of the predetermined threshold is specified as a default value. See col. 5, lines 2-6.

16. In considering claim 9, it is implicit in the teachings of Rabinovich that a value of the predetermined threshold is specified programmatically. See col. 5, lines 2-6.

17. In considering claim 10, the teachings of Rabinovich provide a means for the monitoring step to count the received client requests at individual ones of the one or more edge servers. See col. 5, lines 5-6.

18. In considering claim 11, the teachings of Rabinovich provide a means for the monitoring step to count the received client requests at a plurality of the one or more edge servers. See col. 5, lines 5-6.

19. In considering claim 12, the teachings of Rabinovich further provide a means for monitoring a load on the local network, and triggering the dynamic deployment when the monitored load exceeds a predetermined threshold. See col. 8, lines 50-64.

20. In considering claims 13-17, and 20-24, although the disclosed method of Rabinovich in view of Sim shows substantial features of the claimed invention, it fails to expressly disclose issuing a deployment request for the selected service.

Nevertheless, issuing requests for the deployment of services was well known in the art at the time of the present invention. Rabinovich teaches determining if there are other hosts to which the selected service may be deployed. See col. 5, lines 8-16.

Thus, it would have been apparent to one of ordinary skill in the art at the time of the present invention to modify the teachings of Rabinovich to show in the determination of whether there are other hosts to which the selected service may be deployed, issuing a deployment request and/or response that was capable of comprising a service description, an interface description, information about run-time conditions, and executable code adapted to the run-time conditions. This would have provided an efficient means for dynamically deploying the selected service to unfamiliar hosts located on the network, and would have provided a requestor of the service, the service more efficiently.

21. In considering claim 25, the teachings of Rabinovich further provide a means for transparently routing the received client requests using a repository which tracks

whether the selected service is deployed on the one or more edge servers, and wherein the serving steps serve the received requests from the origin server or from the one or more edge servers, depending on the transparent routing of the received client requests. See col. 4, lines 41-61.

22. Claims 18, 19, are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabinovich in view Sim, and further in view of Applicants Admitted Prior Art (AAPA).

23. In considering claims 18, and 19, although the disclosed system of Rabinovich in view of Sim shows substantial features of the claimed invention, it fails to explicitly teach the deployment request comprising Simple Object Access Protocol (SOAP), or an Extensible Markup Language (XML) protocol.

Nevertheless these protocols were well known in the art at the time of the present invention. The applicant shows this in the discussion of the prior art. See page 5, lines 5-13.

Thus, it would have been obvious to one of ordinary skill in the art to modify the teachings of Rabinovich, to show the deployment request comprising SOAP, or XML. This would have facilitated application integration.

Conclusion

24. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hassan Phillips whose telephone number is (571) 272-3940. The examiner can normally be reached on M-F 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HP/
2/17/05


ZARNI MAUNG
SUPERVISORY PATENT EXAMINER